

What are the Benefits of Electric Drive Vehicles?

Benefits	Hybrid Electric Vehicles	Plug-In Hybrid Electric Vehicles	All-Electric Vehicles
Fuel Economy 	Better than similar conventional vehicles The fuel savings of driving a Honda Civic Hybrid versus a conventional Civic is about 38% in the city and 20% on the highway.	Better than similar HEVs and conventional vehicles PHEVs use 40% to 60% less fuel than conventional vehicles and permit driving at slow and high speeds using only electricity.	No liquid fuels Fuel economy of EVs is usually expressed as cost per mile, which is discussed below.
Emissions Reductions 	Lower emissions than similar conventional vehicles HEV emissions vary by vehicle and type of hybrid power system. HEVs are often used to offset fleet emissions to meet local air-quality improvement strategies and federal requirements.	Lower emissions than HEVs and similar conventional vehicles PHEV emissions are projected to be lower than HEV emissions, because PHEVs are driven on electricity some of the time. Most categories of emissions are lower for electricity generated from power plants than from vehicles running on gasoline or diesel.	Zero emissions EV emissions do not come from the tailpipe, so EVs are considered zero-emission vehicles. However, emissions are produced from the electric power plant. Most categories of emissions are lower for electricity generated from power plants than from vehicles running on gasoline or diesel.
Fuel Cost Savings 	Less expensive to run than a conventional vehicle Because of their improved fuel economy, HEVs usually cost \$0.05 to \$0.07 per mile in fuel, compared to conventional vehicles, which cost \$0.10 to \$0.15 per mile in fuel.	Less expensive to run than an HEV or conventional vehicle When running on electricity, a PHEV can cost \$0.02 to \$0.04 per mile in fuel (based on average U.S. electricity price). When running on gasoline, the same vehicle can cost \$0.05 to \$0.07 per mile in fuel, compared to conventional vehicles, which cost \$0.10 to \$0.15 per mile in fuel.	Less expensive to run than conventional vehicles EVs only run on electricity. A typical electric vehicle costs \$0.02 to \$0.04 per mile for fuel (based on average U.S. electricity price).
Fueling Flexibility 	Can fuel at gas stations or public alternative fueling sites	Can fuel at gas stations or charge at home or public charging stations	Can charge at home or public charging stations

Source: Alternative Fuels and Advanced Vehicles Data Center, www.afdc.energy.gov/afdc/vehicles/electric_benefits.html